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YONHAN 25/10 Amp LiFePO4 Car Battery Charger (RJ-C121501B)

YONHAN 25/10 Amp LiFePO4 Car Battery Charger User Manual

Model: RJ-C121501B

1. INTRODUCTION

This manual provides detailed instructions for the safe and effective use of your YONHAN 25/10 Amp LiFePO4 Car Battery Charger. This intelligent charger is designed to maintain, charge, and repair 12V and 24V lead-acid (STD, AGM, GEL, WET) and LiFePO4 batteries, offering multiple protection features and a smart repair function to extend battery life. Please read this manual thoroughly before operation.

Video: Product demonstration showing the YONHAN 6A Battery Charger connecting to a car battery and displaying charging information, as well as connecting to a motorcycle battery.

2. SAFETY INSTRUCTIONS

- Always wear eye protection and protective clothing when working with batteries.
- Ensure adequate ventilation during charging to prevent gas accumulation.
- Never smoke or allow a spark or flame in the vicinity of the battery or engine.
- Connect the charger to the battery before plugging it into the AC power outlet. Disconnect in reverse order.
- Do not charge frozen batteries.
- Keep the charger away from water, rain, or excessive moisture.
- This charger is equipped with multiple protection features including overheat, overcurrent, electric shock, short circuit, reverse connection, overvoltage, low voltage, and fire protection.

INTELLIGENT MULTIPLE PROTECTION



Image: The YONHAN battery charger's display showing various intelligent multiple protection icons, including overheat, overcurrent, electric shock, short circuit, reverse connect, overvoltage, low voltage, and fire protection.

3. PACKAGE CONTENTS

Verify that all items are present:

- YONHAN 25/10 Amp LiFePO4 Car Battery Charger
- Battery Clamps (Red and Black)
- User Manual

4. PRODUCT OVERVIEW

4.1. Features

- **Upgrade Boost Mode:** Fully automatic jump starting, booster mode, charge, and maintain. Quickly revives deeply discharged batteries.
- **5-Level Adjustable Current:** Offers 25-Amp, 20A, 8A, 2A, and AUTO-A settings to meet various

charging needs.

- **Big Digital Display:** Provides real-time information on detection, power, current, voltage, and temperature.
- **Intelligent Multiple Protection:** Comprehensive safety features against overheat, overcurrent, electric shock, short circuit, reverse connection, overvoltage, low voltage, and fire.
- **Faster Charging:** Up to 30% faster than standard 12V/8A chargers, with 12V/10A and 24V/5A high-speed quick charge capabilities.
- **Smart Repair Function:** Utilizes low-frequency pulse repair technology to desulfurize and rejuvenate old or idle batteries.
- **Winter/Summer Mode:** Intelligent detection adjusts charging parameters based on ambient temperature.



Image: The YONHAN 25/10 Amp LiFePO4 Car Battery Charger, showcasing its compact design, digital display, and attached battery clamps and power cord.



5-Level adjustable current (25-Amp/20A/8A/2A/AUTO-A) Can meet your different needs

Image: The YONHAN charger's display highlighting the 5-level adjustable current options: 2A, 8A, AUTO-A, 20A, and 25A, indicating its versatility for different charging needs.

4.2. Controls and Display

- **Digital Display:** Shows real-time voltage (V), current (A), temperature (°C), and battery charge percentage (20%, 40%, 60%, 80%, 100%).
- **Mode Selection Button:** Allows manual selection of battery types (STD, LiFePO4, AGM/GEL, Motorcycle) and the Repair function.
- **Current Adjustment Buttons:** Used to select the desired charging current (2A, 8A, AUTO-A, 20A, 25A).

BIG SIZE DIGITAL DISPLAY

Detection, power, current, voltage, temperature



Image: A close-up view of the YONHAN battery charger's large digital display, showing detailed information such as voltage, current, temperature, and battery charge status.

TOUCH BUTTON FOR PRECISE SWITCHING



Standard



Start/stop



Water battery



Motorcycle



Repair



MODE SELECTION



Image: The YONHAN charger highlighting its touch buttons for precise mode switching, including options for Standard, Start/Stop, Water battery, Motorcycle, and Repair modes.

5. SETUP

1. **Unpack:** Carefully remove the charger and all accessories from the packaging.
2. **Placement:** Place the charger on a stable, dry, and well-ventilated surface, away from direct sunlight, heat, or moisture.
3. **Battery Preparation:** Ensure the battery terminals are clean and free of corrosion.
4. **Connect Clamps:**
 - Connect the **RED** positive (+) clamp to the positive (+) battery terminal.
 - Connect the **BLACK** negative (-) clamp to the negative (-) battery terminal.
5. **Power Connection:** Plug the charger's AC power cord into a standard 120V AC wall outlet. The charger will automatically detect the battery voltage and display information on the screen.



Image: The YONHAN battery charger connected to a car battery, with the red clamp on the positive terminal and the black clamp on the negative terminal, and the digital display showing 13.6V.

6. OPERATING INSTRUCTIONS

6.1. Automatic Detection and Mode Selection

Upon connecting to a battery and power, the charger automatically detects the battery type (12V or 24V) and displays the current voltage, temperature, and charge level. Use the **MODE SELECTION** button to cycle through available charging modes if automatic selection is not desired or to select a specific battery type (STD, LiFePO4, AGM/GEL, Motorcycle) or the Repair function.

6.2. Adjusting Charging Current

Use the **CURRENT** buttons to select the desired charging amperage: 2A, 8A, AUTO-A, 20A, or 25A. The AUTO-A mode allows the charger to intelligently select the optimal current.

6.3. Repair Function (Desulfurization)

The Smart Repair Function uses low-frequency pulse technology to desulfurize and restore old, idle, or weak batteries. If the charger detects a battery requiring repair, it may automatically enter this mode (indicated by 'DFS' on the screen). You can also manually select the 'REPAIR' mode using the Mode Selection button. For car batteries, a repair cycle typically takes 4 hours or more. For motorcycle batteries, it may take less time.

SMART REPAIR FUNCTION

Using low-frequency pulse repair technology



Image: The YONHAN charger illustrating its Smart Repair Function, which uses low-frequency pulse repair technology to address issues like long idle times, low voltage, and battery aging.

6.4. Booster Mode

The Booster Mode is designed to quickly revive deeply discharged batteries. When selected, the charging current will reach its maximum value for approximately 200 seconds to provide a rapid boost.

12V 25A/24V 15A Car Battery Charger

BOOSTER MODE

When the "Booster" mode is selected, at this point the charging current will reach the maximum value and will last for 200 seconds.



Image: The YONHAN charger's display showing the 'BOOSTER MODE' activated, indicating that the maximum charging current will be applied for 200 seconds to revive a deeply discharged battery.

Video: A brief product demonstration of the YONHAN 0-25A Battery Charger, showing its features and application for various vehicles like cars and motorcycles.

7. MAINTENANCE

- **Cleaning:** Wipe the charger's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasives.
- **Storage:** Store the charger in a cool, dry place when not in use. Ensure cables are neatly coiled and not kinked.
- **Cable Inspection:** Regularly inspect the battery clamps and cables for any signs of damage, wear, or corrosion. Replace if necessary.

8. TROUBLESHOOTING

- **Charger Not Turning On:** Ensure the AC power cord is securely plugged into a live outlet. Check the power outlet with another device.

- **No Display/Incorrect Reading:** Verify that the battery clamps are correctly and securely connected to the battery terminals (red to positive, black to negative). Ensure the battery voltage is within the charger's operating range (12V/24V).
- **Charging Not Starting:** Confirm the correct charging mode is selected for your battery type. If the battery is severely discharged, the charger may enter a repair cycle first.
- **Error Codes:** Refer to the specific error codes in the full user manual for detailed explanations and solutions.

9. SPECIFICATIONS

Attribute	Value
Brand	YONHAN
Model	RJ-C121501B
Input Voltage	24 Volts
Output Voltage	24 Volts (DC)
Current Rating	25 Amps
Compatible Battery Types	12V/24V Lead-Acid (STD, AGM, GEL, WET), LiFePO4
Color	Red
ASIN	B0CBTLBYLR

10. WARRANTY AND SUPPORT

Warranty and support information for this product was not provided in the available data. Please refer to the product packaging or contact YONHAN customer service for details regarding warranty coverage and technical support.